fessor of physics to a full professorship. Professor A. Joffé, director of the Technical Physical Institute of Leningrad, Russia, will be a member of the physics staff during the spring semester, 1927. He will give a course on "Physics of Crystals" and will be available to direct research work of graduate students.

DR. FRANK M. LIFE, professor of physics and head of the department at the University of Arizona, has been appointed head of the College of Letters, Arts and Sciences, to fill the place of Professor Frank C. Lockwood, who has a year's leave of absence.

DR. C. L. WITHYCOMBE has been appointed university lecturer in advanced and economic entomology in the University of Cambridge.

THE council of the University of Manchester has made the following appointments: Mr. H. E. Buckley to be lecturer in crystallography; Miss Margaret S. Willis to be assistant lecturer in geography; Dr. C. E. Brunton to be demonstrator in human physiology; Dr. O. R. Howell, lecturer in applied chemistry in the faculty of technology; Mr. Robert Grindley, demonstrator in chemical technology in the faculty of technology.

DISCUSSION

WHAT CONSTITUTES PUBLICATION? A QUESTION CONCERNING NOMENCLATURE

IN SCIENCE, No. 1631, p. 362, I note a summary of Opinion 87 of the International Commission on Zoological Nomenclature: "Printer's proof sheets do not constitute publication and, therefore, have no status under the International Rules of Zoological nomenclature." No zoologist could be found, I suppose, who would dispute this salutary ruling;[1] but on reading the full opinion, the example selected to illustrate it appears to me unfortunate and the statement of the case misleading. It is the case of the "Smithsonian Miscellaneous Collections, 000."

In the Century Dictionary a proof sheet is defined as "a printer's proof," which is "a trial impression from composed type taken for correction." The printed matter referred to in Opinion 87 is a stitched octavo pamphlet of twelve leaves. The first leaf has the title quoted above, and an introduction (continued on page 2) stating the subject and author (W. G. Binney), and signed by Joseph Henry, Secretary, S. I., dated "Smithsonian Institution, Dec. 9, 1863." The following pages, numbered 3 to 12, are printed on one side of the paper only, all being left-hand pages.

Professor Henry referred to this paper in these words: "As a mere proof which will undoubtedly receive many corrections, these pages should not be quoted as authority, or referred to as a published work." This is certainly a naïve suggestion. Most zoological publications "will undoubtedly receive many corrections," even those of to-day; ours is not an exact science. The mere statement that the paper is a "proof" can not make it a "proof-sheet" if it is not one. As a matter of fact, it was never intended as a proof sheet in the true sense of that term. It is a pamphlet, stitched and paged, dated, furnished with a formal introduction to the reader, and sent out widely by a responsible scientific institution, not for the correction of typographical or similar errors, but to obtain "information relative to the subject of these researches" and "contributions of specimens . . . serving to illustrate local faunas," etc.

I need only add that the paper in question is a common one. The statement in Opinion 87 that it was sent out "to a limited number of persons interested in the study of mollusks," though apparently a mere assumption without documentary evidence, is doubtless true. But the limit was evidently placed high enough to reach all persons who would be interested, for the paper is still easy to get, over sixty years since it was issued. Many years ago I procured a copy from a dealer, and within the past year was given another among miscellaneous pamphlets on mollusks. A colleague here tells me that his copy was handed him three or four years ago by a friend who had it in duplicate. In the library of the Academy of Natural Sciences I find it duly bound with other "Smithsonian Miscellaneous Collections."

It is clear that the Smithsonian Institution gave this paper a general circulation among shell collectors and conchologists of its time, and doubtless supplied it to all inquirers. It was only by such general distribution that the objects of the publication could be attained. To claim that this paper was not published appears, to put it mildly, disingenuous. It does not belong to the class covered by the summary of Opinion 87.

It was in this pamphlet that the name *Carinifex newberryi* Lea first appeared. In the opinion under consideration, it is claimed that there was not "any indication" which of the species which had been named *newberryi* might be intended by Binney's *Carinifex newberryi*. This claim does not appear to be tenable. It should be understood that the work was a list of all North American species of air-breathing mollusks, classified under families and subfamilies, systematically arranged. Up to that time (1863),

[1] The only case which I recollect of proof sheet names finding their way into published works is that of W. E. Leach, whose proofs of a projected work were quoted by J. E. Gray many years ago.

three[2] species of mollusks had been named *newberryi*. One of them, *Melania newberryi* Lea, is not an air-breathing mollusk, and belongs to a family not included in the scope of Binney's work. This leaves two species for consideration: *Ancylus newberryi* and *Planorbis newberryi*. *Ancylus newberryi* Lea was duly enumerated by Binney among the Ancylinæ (p. 11) and is thus eliminated. *"Carinifex newberryi* Lea" was placed by Binney in the Planorbinæ, and could be nothing else than *Planorbis newberryi* Lea, which does not otherwise appear in the list. Nobody ever thought it was anything else. The name *Carinifex* passed into general use, and has appeared in hundreds of papers, here and abroad. It was never questioned before.

The name *Megasystropha* Lea for *Planorbis newberryi* was published in April, 1864. It was proposed "provisionally" by Lea, probably in the belief that as *Carinifex* had not been *defined*, it could be displaced. It was an era of scant courtesy between systematic conchologists.

While Binney's way of introducing a new generic name is not to be commended, it appears to me a needless disturbance of nomenclature to replace *Carinifex* by the later, still-born and clumsy name *Megasystropha*.

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BOWMANVILLE LOW-WATER STAGE OF GLACIAL LAKE CHICAGO

IN Dr. D. J. Fisher's very interesting account of the geology of the Joliet Quadrangle[1] (page 102) a low-water stage is described as occurring between the Glenwood and Calumet high-water stages of Lake Chicago. It is gratifying to have this low-water stage again affirmed, as the writer showed evidence of its existence a number of years ago[2] following the earlier statement of its existence by Dr. Andrews.[3] The name given it by Dr. Fisher can not be used, however, as the writer gave this stage a formal name in 1920—the Bowmanville. Evidently Dr. Fisher has not seen the writer's "Life of the Pleistocene," in which the history of the life of Glacial Lake Chicago is described in great detail, based on a study of the entire length of the North Shore Drainage Channel, which cut longitudinally through the bed of old Wilmette Bay. The stages of the glacial lake there outlined are as follows: Glenwood, Bowmanville (=Evanston), Calumet, Toleston, Sag Low Water, Hammond, Englewood. The name Bowmanville is formally described on page 69 of the volume, "Life of the Pleistocene."[4]

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[2] Not four species, as stated in Opinion 87. *Goniobasis newberryi* Lea, 1863, is not a fourth species, but only a change of the generic name of *Melania newberryi* Lea, 1858, as a reference to Lea's paper will show.

[1] Bull. Ill. Geol. Surv., No. 51.

[2] Trans. Ill. Acad. Sci., IV, p. 110.

[3] Trans. Chi. Acad. Sci., II, pp. 1–24, 1877.

[4] Univ. Ill. Bull., Vol. XVII, No. 41, i–xiv, 1–476, pl. i–lvii, 1920.

INHERITANCE OF ACCESSORY MAMMAE

In *Science* for June 11, 1926, Dr. W. W. Keen cited a case of the transmission of extra nipples and breasts from father to children, and states that "it would be very interesting to learn whether this peculiarity was passed on to his grandchildren." Some references to the inheritance of the anomaly are given by Deaver and McFarland in their book, "The Breast" (Philadelphia, 1917), including the study of Marie on the incidence of polymastia in four generations of a French family. A similar complete and equally remarkable case, also involving four generations, has recently been published by Klinkerfuss (*Journal of the American Medical Association*, April 19, 1924, p. 1247). More remarkable still are the experiments of Alexander Graham Bell on multi-nippled sheep (SCIENCE, n. s. 9: 637).

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SCIENTIFIC BOOKS

Plants and Man, A Series of Essays relating to the Botany of Ordinary Life. By F. O. BOWER, Sc.D., LL.D., F.R.S., Emeritus Professor of Botany, University of Glasgow. Macmillan and Co., Ltd., London, 1925. pp. xxi, 365.

IN spite of William Beebe, the exception who proves the rule, it is well known that there is a dearth in this country of writers of the so-called "popular science." It is perhaps not so widely realized what a handicap this entails. However, the recent "evolution trial" was denounced much more harshly in the British and Continental press than in our own. This may have been due to the European public being informed in science largely through the medium of a popularized literature. The writer has recently come across a book by F. O. Bower, published last year in London, which is believed should prove of wide appeal among "laymen" in this country. Only occasionally is one reminded of its British origin, as in "tyre," "Kitchen Garden" and "Dessert Fruits."

The purpose of the book "is to explain, for the general reader, in very general terms, how plants fabricate for their own life commodities that man